

In the Claims:

SUB  
B1  
A13 1. A method of applying a protective coating to a bottom surface of a wafer, and of protecting bottom edges and corners of chips forming part of the wafer, which comprises the steps of:

forming trenches in a top surface of the wafer;

applying a top side dicing tape to the top surface;

grinding the wafer at a bottom surface opposite the top surface and thereby laying open the trenches;

applying a protective material on the bottom surface and filling the trenches; and

hardening the protective material to form a protection layer.

2. A method of dicing a semiconductor wafer, which comprises:

applying a protective coating to a bottom surface of the wafer in accordance with claim 1; and further

fixing the protection layer to a mounting tape for fastening the wafer onto a dicing frame;

removing the top side dicing tape;

dicing the wafer into dies through the hardened protective material; and

picking the dies off the mounting tape.

SUB  
B2 3. A method of applying a protective coating to a bottom surface of a wafer, and of protecting bottom edges and corners of chips forming part of the wafer, which comprises the steps of:

forming trenches in a top surface of the wafer;

applying a top side dicing tape to the top surface;

grinding the wafer at a bottom surface opposite the top surface and thereby laying open the trenches;

applying a glue layer onto a mounting tape; and

mounting the wafer on the mounting tape and causing the glue to fill the trenches.

4. A method of dicing a semiconductor wafer, which comprises:

applying a protective coating to a bottom surface of the wafer in accordance with *claim 3*; and further

removing the top side dicing tape;

dicing the wafer into dies through the hardened glue; and  
picking the dies off the mounting tape.

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